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## MY SCOUTS.

MUCH of the comfort and indeed, at times, of the success of an Oxford student, depends upon his scout or servant. Like other folks—I may say beyond other folks, they have their peculiarities, the chief of which is a leaning towards perquisites; and this, if not occasionally checked, may seriously tell upon the pockets of their masters. Almost all the scouts I have known were men of the greatest self-importance. In fact of a large class of scouts this may be known to be a distinguishing feature. Most of them lord-mayored it over us to a tremendous extent, and both in manner and person were well fitted for the great civic seat. The reason of this feeling of superiority to their kind is pretty obvious: a Freshman comes up to the University, helpless and in many cases perfectly ignorant of this new world and its ways. His scout therefore becomes for a time his guide, philosopher—I was going to say friend, but perhaps not quite that. His sway is naturally enough never entirely thrown off. It is said that men are never heroes to their valets-de-chambre; how much less heroic would they appear in their valets' eyes if they had known all their boyish scrapes and all the incidents of their childhood! Gyps they call them at Cambridge, a word which signifies in the original Greek a vulture. Our scouts did not deserve quite so bad a title. As their name may signify, they were light-foragers rather than such ravenous harpies as the name in vogue at the sister university would imply.

Before proceeding to individual examples, let me premise once for all that, as a class, they were, and no doubt are, the very best servants in the world. They are quick (a virtue indeed) and invariably obliging. Above all, they never put off doing anything you bid, by saying that they will see about it, or will do it directly. How often does that phrase 'to see about it' bear the bitter fruit of disappointment, when uttered by others than servants! This readiness is the more remarkable, as scouts, having several masters, might make

use of the orders of one as an excuse for omitting to perform those of another. I never heard of such an expedient being used. In my college we were eight on each staircase, and enjoyed the ministrations of two scouts; or, to speak technically, of one scout and one scout's boy. Though called a boy, the latter was generally of mature age, say thirty, and had not infrequently a numerous family of young scouts. But young or old, he always paid the greatest respect to the scout proper. He always addressed him as 'Sir,' and was often severely and loudly reprimanded by him. Like the old Latin poet, I am fond of inquiring into the 'causes of things;' so I fancy that the original scout's boy was in reality his son, at a period when fathers exacted that respectful form of address from their children.

The scout's salary was high: besides fixed wages from the college, he enjoyed no end of perquisites by law or custom, among which was the right to everything which, having primarily emanated from the college kitchen, was left on our Sybaritic tables. He was also liberally tipped at the end of every term by all the men on his staircase. In short, here would be a splendid opportunity of introducing a system of gentlemen-scouts. I am afraid it would not succeed, though; fancy a man's feelings when scout on the very staircase on which he had once inhabited 'drawing-rooms' and dispensed a too free hospitality! Marius a fugitive, Belisarius a beggar, would be nothing to it. The emoluments, nevertheless, would make a man put up with much; and he could still keep up his boating and cricket, since the scouts have athletic clubs, principally supported by their masters. He could have his trip too in the summer, since many scouts take their families to the fashionable watering-places, where they act as extra waiters in the season. Considerably better pay on the whole than most schoolmasters and, sad to say, many clergymen get.

My acquaintance with scout Number One came about in this wise. When I went up to enter on residence, I had never been in Oxford before, having passed my matriculation at school, as was

possible in some cases; so I was set down in a helpless state at the door of St Boniface. I asked for my rooms, and was comforted at finding that some had been assigned to me. That at any rate was a sort of welcome. Off I set, escorted by a one-armed man. You may see him to-day hanging about the gate of a certain college, of which he is one remarkable feature. Men employ him to do little jobs such as going errands; you may often see them tossing him as to whether he is to get a shilling—or not. As you may guess, he always gets it sooner or later; sooner generally, as we used to say at college. For my part I gave him a shilling every term; and all he ever did for it was to sedulously touch his hat whenever I passed through the gates, which might be twenty times a day. With this guide stumping along beside me, I ascended the staircase he indicated, up, up to the very top where Freshmen lie. Then at length I saw a figure, which was destined to become even more familiar to me than that of my guide: a man above the middle height, and decidedly inclined to stoutness; his face somewhat flushed with the good things of this life. His eyes always afterwards appeared to me to express a sort of latent contempt, but at this time they seemed to say: 'Ah, ah! a Freshman; we'll take care of him!' He was clad in a sort of sleeved waistcoat and black trousers; his gold chain was very conspicuous, and so was his black velvet skull-cap, without which I seldom saw him. He was very bald, so whether he used it for warmth or for adornment I can't say; that old staircase was very cold and draughty at the best of times. He was about fifty years old, I should say; and his manners always called up Pecksniff to my mind. He had an oily, insinuating way of his own, and was above all a very incarnation of respectability. 'One-arm' introduced me. The scout made me a very low bow, which was at the same time patronising: 'Mr Brown; yes, sir; these are your rooms, sir: view rather circumscribed, sir? well, it is, sir; but these rooms are always given to Freshmen, sir: I hope I shall make you comfortable.' I was quite abashed by the grandeur of his manner. He never ceased rubbing his hands while speaking; he was always washing them, as the saying is, with invisible soap. From that day I seldom disputed the wishes of Morris. He made me very comfortable, and I am afraid he also made his market of me. Freshmen, as I have observed, have seldom spirit enough to oppose their scout at first, and in this sort of thing the first blow is everything.

What a very respectable man Morris was! I think he was a churchwarden, and this is the reason why. On the day of the Derby, Morris was absent; and in answer to my inquiries, Sam, the scout's boy, informed me—with what I took for a meaning grin—that he was away on business. I of course drew my own conclusions. As I was going down the stairs that evening about nine o'clock, I met Morris coming up. 'What sort of a Derby was it, Morris?' 'Derby, sir?' answered

Morris, as if he had just remembered it. 'Oh, *Blue-gown* won it, sir. I don't know by how much, sir; I've been on vestry business all the afternoon.' Was I mistaken, or did the light of the candle reveal a curious twinkle in his cunning little eyes? Vestry business! I'm not sure whether he was a churchwarden; or it might have been a christening that day. Perhaps he meant *that* by a vestry business. I'm afraid he rather managed me: my glass and china were found exceedingly scanty when I removed to new rooms; but taking everything into consideration, he served me well, and perhaps I broke it myself—we were not very careful. His ideas, however, were rather too luxurious for my purse. I remember his silent scorn when, on having some guests of the fair sex to lunch, I proposed, when discussing the ways and means, to have some claret cup. It was only my second term, and I bent before his glance, and hastily ordered champagne instead. The man who succeeded me in those rooms was a friend of mine, so that I often saw Morris afterwards. His behaviour to me was full of such respectful tact, that he drew an extra tip from me in a moment of weakness. Of course I repented it afterwards; but I was always weak.

I moved into better rooms; but my scout improved even more than my rooms. His name was Mann; and a man he was every inch of him; with quite a high reputation in the college. As I look back on the time I spent on his staircase, I would that a monument might be set up to him, *pour encourager les autres*. May the sod lie lightly on him. Still, he had his little oddities, but they were pleasant ones on the whole. Amusing ones, at least. About six-feet-one in height, florid complexion, black eyes, and black hair and whiskers. He always wore a frock-coat on Sunday. A frank-looking man; one of the handsomest I ever saw. He always dressed well, but on Sunday quite elegantly.

As far as keeping up your spirits went, Mann was invaluable. When I was 'reading' just before examination week, whenever he entered the room he would remark: 'Keep up your pluck, sir, and go in as bold as brass! There is nothing like brass; it will carry you over a deal of broken ground, sir. Why, Mr Robinson just over you, sir, he went in last term, and hardly read a word, sir; he got a third. *He* was a cool gentleman, and no mistake.' As in the above, Mann was apt to become rather horsey in his metaphors—I suppose through intercourse with the racing set who inhabited two or three of his rooms. I did get through by a close shave, and have, I don't doubt, been held up as an encouragement to future generations. One virtue, and that a cardinal one at Oxford, Mann possessed in perfection, that of concocting drinks of all kinds; his mulled claret, in particular, was perfection. Another quality, also in high esteem there, he possessed, a chronic enmity to duns. Just after I got the rooms, a man came with intent to dun my predecessor. Mann intercepted him, and sent him away with, to use one of

his favourite metaphors, a flea in his ear. I quite shook with delight as I heard the altercation outside my half-open door, and mentally determined on giving Mann an extra half-sovereign when convenient. He would have been a treasure to Mr Mantalini. One of his faults was over-curiosity. He was also rather fond of taking my arm-chair and a novel when I was out. I caught him at it once, and I don't know who was the more confused, scout or master.

Mann looked after my welfare and cared for my interests in a way that no scout did before or after him. I was once very poorly for a week, and he then attended on me in a way which made me really grateful to him. But he *would* make my arrow-root with water, and to every complaint answered, that he had lived with an invalid for ten years and always made it so.

Sorry was I to part with Mann, but I wished to take my degree, and the rooms were in too noisy a situation to allow of much serious reading. So I got a new scout, whose name was Walker. (By-the-bye, all scouts were addressed by their surnames, all scouts' boys by their Christian names. It had a very peculiar effect, the shouting out such a name as Mann on the staircase as loud as you could: we had no bells.) Alas! I had got, not out of the frying-pan, but out of the brook itself at one leap, into the fire. His appearance was unsatisfactory, a striking contrast to the majestic Mann: he was a short thick man, of sallow complexion, lit up by a flaming scarlet nose of Roman pattern. I don't think his nose belied him. His dress too was generally untidy, and his habits not scrupulously clean. He must have become a scout by mistake, for Nature evidently intended him for a kitchen-boy. Nevertheless some of the qualities of a scout he possessed, and especially an idea that my purse was endless. I needed a coal-scuttle: those used at Oxford are generally very plain; but he provided me with one that much exceeded a guinea in price. I thought it rather dear, since I had given about half-a-crown for the one in my last rooms: but that was a broken one certainly, and purchased from my scout. As a rule, however, Walker had none of the patronising airs of his class. He could not make iced cup. Think of that! He was the only scout I ever heard of who could not. I was obliged to ask Mann to come over when I wanted any, or else have it from a confectioner; the latter plan being a very dear one. One day the old fellow being away, I asked the reason, and the scout's boy informed me that he had been seized by a sort of fit to which he was subject. Meeting one of my neighbours, I mentioned it. 'Sort of fit!' shouted he, going himself into fits of laughter. 'Subject to it! So he is, by Jove!—They've regularly taken you in. Why, man, he got intoxicated last night, you may bet a pound. He's always doing it; that's his fit.' And he was right, no doubt, for the fits were of frequent recurrence. I did not part with him with feelings of any great regret.

My 'boys' were less amusing than the scouts; they were made more in a mould. My first was named Will. He was tall, dark, and handsome; pulled 'three,' I believe, in the scouts' boat. He had a curious habit of blushing if he made a mistake in waiting at table or knocked a book down. A funny friend of mine used to tell funny stories

on purpose to upset Will's gravity, and generally succeeded. If he did so, Will always had it out in a cupboard, where my plates were kept, plunging in his head like an ostrich, while his coat-tails betrayed his enjoyment. His retreat to this refuge amused us as much as our tales amused him. He also invariably quarrelled with the laundress, and they would carry on an altercation all across the quad. Charles, my next 'boy,' had no peculiarity except his taste in dress and his well-fitting clothes.

Well, those scouts were part of my surroundings during, most likely, the happiest years of my life. They served me—well, they served me well, no matter with what object. No one does anything for nothing. And I parted with my scouts with as much regret as Cooper parted with his Hawk-eye, or that Last of the Mohicans with the unpronounceable name.

During all the time I had to do with them, not one of them ever addressed to me an uncivil word. I always found them ready, if properly requested, to do anything which did not lie quite within the pale of their duties. Mann was especially good in this way; though I have many pleasant recollections also of Morris. Of Walker I can't say much that is good. He was a decidedly shady scout; perhaps he seemed worse after Mann's assiduous attendance. I shall go down some day and see if the last-mentioned is still in the old staircase; we shall have a good deal in common, my old scout and I, more than many people of apparently more congenial positions. When he goes where scouts are scouts no more, may earth lie lightly on his ashes!

## THE ARAB WIFE.

### A TALE OF THE POLYNESIAN SEAS.

#### CHAPTER II.—THE FIGHT.

THE piratical craft came on steadily until within musket-shot of our bows. They were all in a huddle, and if we could have veered round the *Shooting Star*, we might have used our carronades to good purpose. But we were immovable, and could not use the fair opportunity. The proas halted for a few minutes, during which the jabbering on board of their craft was indescribable, and can be likened to nothing save the chattering of a menagerie of apes. At length they seemed resolved upon a line of action, and divided, three proas coming on our port side, three on our starboard, and one holding itself aloof, and rowing behind the three starboard attackers at a leisurely pace. I must confess that I didn't like this division of labour, as I saw clearly that I should have to be separated from Captain Orde. Hardly had I divined this than he said: 'Shinny up to the top and take the port side. I must remain here.' I went at once; and when I got into the foretop I glanced at the proas, and saw that to starboard the pirates were at least a minute ahead of the scoundrels coming against my station. I examined my muskets—of which there were four in the top ready loaded—and my revolver, exchanged a few words with the Lascars, to encourage them, and then turned round to watch the colonel.

Almost instantly his hand went up, the sliding bulwark went back, his carronade was run forward on the proa that was nearest. It was at that time so near you might have tossed a biscuit among the villains. He pulled the lanyard, and the storm of canister went with a thundering report among the vile crew, killing and wounding many, and playing sad havoc with the frail timbers of the proa. The bulwark slid back, and the reloading commenced, as I supposed, for I turned my head to the contemplation of my own duties, which were sufficiently onerous to claim my entire attention.

When the proas came within range, the same manœuvre of sliding back the bulwark and firing was repeated by our side with very considerable effect, but not sinking either of the proas. After the discharge of our twelve-pounder, and before we had time to reload, the dusky heathens were swarming up our bulwarks, and standing in the rigging of their short masts, were endeavouring to hoist upon our decks their infamous stink-pots. These were made of earthenware, resembling the chatties of India, and were suspended by ropes of tough coir. I had a feeling, as I poised my musket before aiming at a gigantic Papuan, something as I had experienced before diving in head first when I was learning to swim. I aimed steadily, however, fired, and the man went down. The ice was broken, and from that moment my muskets were fired with as much rapidity and deadly effect as I could compass. Nor did any stink-pot burst over the heads of the men below me, to my great satisfaction. The carronades boomed away with a regularity that was joyful to my ears, easily to be distinguished from the sharp bang of the brass swivels of the pirates. Soon, however, the increasing numbers of the enemy forced us who were in the tops to rally to the assistance of the men in the decks, and, sabre in hand, I dashed into the *melée*. My revolver was emptied, and consequently useless. I soon found myself hotly engaged with a stalwart Arab, who rained down such a shower of blows upon me with his *tulhear* that it was with difficulty I could parry them. I could not even attempt to make any rejoinder, and with the utmost despair I felt my strength fast leaving me. As I endeavoured to collect my strength for a last effort, I was suddenly hooked from behind, and before I could know the cause, I received a blow on the head from the Arab's sword, and lost consciousness.

When I regained it, I found myself lying at the bottom of a proa with the warm blood pouring over my face from a smart cut on the forehead. My hands and feet were bound with some confounded substance that cut into the flesh and gave me extreme pain. But I was so weak from loss of blood that I could not have raised my head if my life had depended on it. I tried in vain for some time to remember where I was or what had transpired, but I could not. The regular loud report of the carronades, the discharge of the muskets, the firing of the swivels, the oaths, the shouts, and all the uproar of determined fight, I heard to perfection, without

the slightest comprehension of what it meant. Vaguely the reports seemed to become less loud, as I again lost consciousness, which was only regained by a swarm of heathens pouring into the proa, and trampling over my prostrate body. Even then I could not realise the misfortune that had befallen me. Soon, however, I heard the regular sound of oars striking the water, and could realise that we were moving. At length this motion stopped, and the firing of the brass swivels began again, and was kept up with considerable spirit. I listened instinctively for the deeper boom of the carronades, not for any particular reason, but because my ear had heard it before at regular intervals, and expected it.

I must have lost consciousness several times, when at last the expected sound was heard. I was gratified—I did not know why—but still some instinct seemed to tell me that things were all right, and I fell asleep. My awakening was a rough one. A vessel-full of salt-water was dashed in my face, and the smarting of the wound on my head made me at once very wide awake. I was hauled into an upright position by two oily-skinned Malays, and brought before the Arab who had cut me down. He looked at me and nodded, speaking in what I supposed was Arabic. I answered in Hindustani that I did not speak Arabic. He seemed to recognise some of the sounds, but evidently did not understand what I said. Then I tried Gujarati, which is the sailor-tongue of Western India; but this also was unknown to him. There was, however, another Arab who pressed forward and spoke to me in Cutch, a dialect of Gujarati, and one with which I was fortunately familiar. He then spoke to the man who cut me down, in Arabic; and soon I was deluged with questions as to the vessel that had been attacked, and which I now learned had succeeded in beating them off. I could not help a smile of pleasure at the intelligence, which, however, was soon damped by reflecting on my own situation. The Arabs, of whom there were at least five standing around the one who had felled me, began an animated discussion, which I could not help believing referred to myself, and I waited with considerable anxiety for the result. It was at this time, as near as I could judge by the position of the moon, about midnight. There was a light breeze stirring, very light indeed, but sufficient to fill the sails of the proas, the rowers of which were asleep on their broad benches. The piratical vessels were all together, going very easily, but there was no light of any kind on any of the vessels. I learned afterwards that this is from fear of the sword-fish, which abound in these waters, and which occasionally attack these frail craft, driving their sharp snouts right through the thin planking.

At length the discussion was over, and the Arab chief taking from the silver receptacle in his girdle a broad whistle, applied it to his lips and sent forth a piercing sound. A response came immediately from the six other proas, and within a few seconds light splashes were heard, which were soon accounted for by the appearance of six sampans, which quickly boarded our proa, the chiefs of the other vessels crowding around the Arab. I was somewhat unceremoniously dragged into the centre of the circle and exhibited. The Arab spoke a few brief sentences in Malay, to which the



others responded by motions of assent and waving of hands; whereupon I was as unceremoniously dragged away by the Cutch-speaking Arab, who whispered to me in a low tone of voice when we were at the bow, that I happened to be the only result of the expedition so far; that the Arab chief had taken me prisoner by his sword, and therefore I belonged to him as his slave, which I might consider lucky, for if I had belonged to the general spoil, I should either have been decapitated and my head hung up as a trophy in some Malay hut, or have been given to a Malay chief as a slave, to pass the remainder of my life in cutting wood in the forests, or toiling at the pearl-fisheries.

'*Bhai*,' said I (this being Cutch for brother), 'what does your chief intend to do with me?'

'I do not know,' he replied; 'that will depend very much on yourself.'

'Well, brother, would you cut these bonds around my hands? The coir cuts into the flesh, and I can hardly bear the pain.'

'Wait,' said the friendly Cutchman, 'until the conference of the *reis* is over. They are discussing whether they shall return or seek a fresh prey.'

The pain was really intolerable, and after the smarting of my wounded head had ceased, made itself more and more apparent, and the groans which I could not repress with all my pride, moved my companion to pity. He drew a neat little dagger from his girdle and quickly released me from my agony. Then taking some leaves, he chewed them into a mass and applied it to the places where the skin was cut. Then he examined the cut on my head, which he said was *bahut chota* (a very trifling affair), and that if some slave had not hooked me from behind, the chief's tulwar would inevitably have sent my soul to Eblis. 'Whereas now,' said he with considerable unction, 'the finger of the Prophet, whose name be praised! is on thy head, and thou shalt become a believer of the true God, and a sharer in the paradise of his people.'

To this I made no reply; but I scrutinised the man with more attention than I had hitherto bestowed, being so full of pains and aches from the constrained posture in which I had lain that I had taken very little notice of the persons and things around me. I asked the Cutchman his name. He said he was called Abou Ben Rashid, and that he belonged to the tribe of the Beni Gharas of Morbat. He was clothed in the usual Arab costume, but he had a Hindustani tulwar instead of an Arab sword, which has no crossbar to the hilt; and his girdle was of very massive silver. He was an old man with a scanty grizzled beard, and a face resembling very much what we see in pictures of the Jewish patriarchs. In fact, had I seen it anywhere else I should have taken it for a type of Benevolence. Just at that moment too, he was looking specially gentle, for he had a convert in hand, and I had heard my father say that the Mussulmans would move heaven and earth to make proselytes to Mohammed. I think too, that perhaps the old man felt real compassion for me, for I was singularly blonde in complexion, and if it had not been for the moustache of yellow down which ornamented my upper lip, I might easily have passed for a girl. At anyrate it was evident that he wished to be kind, and I felt grateful to him; so I told him that though I had no intention of abandoning the faith in which I was reared, I

had no objection at some future time to hear the tenets which the Arabs held; but that at present I should be grateful if I might have some water to drink. My friend Abou nodded, and brought me some in a calabash, which I drank with the utmost delight. He then unrolled from his arm a cocoon matting (which I found afterwards was his prayer carpet) and a light Arab robe, and told me to go to sleep if I could, and not to fear for anything, as the crew understood that I belonged to their chief, whose name was Nizam, though he was generally called Reis or Mirza.

At seventeen, hope is a much more important personage than in later years. Though my position was a painful one, yet the certainty that the *Shooting Star* had escaped, and the strong probability that my dear father was all right, were great consolations. Old Abou was probably high in the confidence of the Reis Nizam, and he was disposed to be friendly. I had not been rifled, and my precious stones were still in the inner pocket of my vest. Something might be done with these. And as I was pondering all sorts of impossible plans I fell fast asleep, and did not wake until the sun was high in the heavens, and old Abou gave me a friendly shake of the arm to waken me.

Though still considerably cramped, I was in good enough spirits when I woke, and felt quite capable of eating anything that might be brought before me. I hinted as much to Abou; but he told me that the Arabs had only two set meals a day, at noon and at sunset; but that if I was very hungry, he would bring me some dates. I assented eagerly, and he brought me a huge lump, nearly a pound, which I ate with so much relish that Abou declared I should make a capital Arab. The wind was very light, and the heavy matting sails hardly drew at all. Soon it came only in catpaws, and the rowers took their stations and commenced their labours. I took the liberty of asking Abou, when he invited me to share the boiled rice and fish which was the noonday meal, whether we were returning to the chief's place or still on the look-out. To my great disgust, I learned that we were still on the look-out.

My first experiences at an Arab meal were peculiar. Neither knife nor fork, and Abou explained that the right hand only must be used, as the left was Sheitan's hand. The manner of proceeding, which I closely imitated, was to take a handful of rice, manipulate it with the fingers into a round ball, and then swallow it, then break off a piece of fish with the fingers, swallow that, and attack the rice again. Let me confess that I did this with keen enjoyment, as a bit of excellent fun. When we had finished eating, Abou called a Papuan and gave him the two platters with a superb air. The nigger received them with a profusion of thanks, and carried them off in high glee; whilst my old friend and I washed our hands as well as we could in the salt-water. Afterwards I took a lesson in Arabic, which from my knowledge of Hindustani was extremely easy, the one possessing many words of the other, though the structure and grammar of Hindustani are different.

We were twenty hours on the water before we caught sight of any object. Then the look-out observed a dark mass far away to the eastward; and all the proas halted at the whistle of the Ro-

Nizam, or to speak more correctly, Nizam al Reis. The chiefs of the other proas were all Malays, but had evidently great respect for Nizam, and obeyed him unhesitatingly. I sat cross-legged with Abou in the background, hoping to escape remark; but it seems that one of the Malays started the idea that being a white man I could see farther than other people. So I was questioned, and disclaimed the power very earnestly; but I could not help remarking to Abou that the Reis possessed a telescope, and that I wondered he did not use it. I made use of the words 'long sight' to express telescope; but as Abou did not catch my meaning, I made it clearer by pointing out the thing itself, which I had noticed among a pile of other things in that part of the proa sacred to the captain.

There was a perfect shower of nods when I spoke, and Abou, at a word from Nizam, fetched the telescope, which was handsomely cased in bright yellow leather. I took off the case and adjusted the focus, took a long gaze at the little dark mass, and discovered it to be a fleet of large proas, the announcement of which was received with evident incredulity. Then I motioned to the chief to look himself, telling Abou to instruct him to close his left eye, myself steadying the glass for him. He looked for a moment, and then turned round with a face of delight, shouting to the other chiefs, 'Shin!' a word which they repeated with intense rapture. I was rather bewildered by all this; but in taking a second look, I found that instead of being large proas as I thought, they were Chinese junks, and the pirates expected a rich haul. With hardly a minute's pause they were in their sampans, paddling away to their craft; and in a wonderfully short time the fleet was under full pressure of oars, steering steadily for the unfortunate Celestials. There was no hesitation, no sampan reconnoitring. They seemed convinced that there could be no resistance, and they dashed straight for the prey.

The chief Nizam looked at me with an approving air, and calling up Abou, made me explain as well as I could the properties of the telescope and the way to use it. The last I could do perfectly; and Nizam was evidently greatly delighted when he could arrange the focus for himself, which he managed to do with great quickness. But his questions as to the mechanism I could not well explain. I could only say that there were round pieces of glass arranged in a certain manner by the men whose business it was to make long-sights. This didn't satisfy him; but as I evidently could not tell more, he desisted, and told me to remain by Abou, who would take care of me.

In the meantime we were rowing steadily towards the junks, and closed upon them in about a day's chase. When we approached there was a dreadful noise of gongs and drums, rockets were discharged which did not go near us, and the sides of the vessels were manned by fellows having shields painted in the most terrific way. As soon as the brass swivels were discharged, and considerable havoc had been done, the warriors bolted and lay down on their faces. The pirates boarded them, and I had the curiosity to go too. The scene was not without its humorous side. Between decks the vessels were partitioned off into little cribs, in each of which was a merchant with his stock

of goods, his bag of silver, and his provisions. There wasn't room to stand or to lie down, and each man squatted in a ludicrous fashion awaiting with calmness the inevitable spoliation. This was most complete, and the proas were loaded with spoil of all descriptions. The Malays cut off the heads of the killed and I believe of the wounded. No slaves were taken. I asked Abou the reason. He said the Chinese were worshippers of devils, that they would not work, and if they were whipped, they would drown themselves. All day long and far into the night the process of transferring valuables continued, and at length, after a thorough ransacking, the junks were abandoned, and the proas were turned towards their home.

My old friend Abou said that to reach this would occupy about two days and a half; and indeed on the third morning we saw the blue cloud which was to be my future prison. I was making astounding progress in Arabic, but it was extremely easy to one who had mastered Hindustani, and the ideas which the Reis formed of my capacity from this circumstance were not deserved. Still I was glad of his high opinion, since I was very reluctant to work as the slaves worked at Gezireh, their duty being to pass through their fingers rotting masses of oysters and feel for the pearls. This island home of the pirates was called Gezireh, but this means simply island, and I have no notion what its real name is, nor have I ever found it named on any chart. I only know that as we speeded towards it, the island of Celebes was on our right and Borneo on our left, and I should guess it was about thirty-five miles south of either. It was about noon when we entered a long narrow bay and the proas came alongside a sort of natural jetty of sandstone.

#### CHAPTER III.—ASHORE.

Following Abou ashore—being still under his directions—I waited patiently until the goods, the *spolia opima*, had been discharged and carried to a great storehouse. This took considerable time, and I was heartily tired of my position long before Abou came for me. Meanwhile I looked about me and found Gezireh not uninviting. The place was clean enough, and the scenery magnificent. A semicircle of hills surrounded the little harbour, spurs of which came close to the water's edge on each side of the town, the range running beyond, and terminating in broad bluffs that went sheer down many thousand feet into the ocean. On the crest of one hill that formed a part of the eastern spur there was a rough sort of castle, seemingly built of mud and stones, and encircled by luxuriant vegetation. The hills were broken in the centre by a stream, which meandered pleasantly through the town, and on whose banks most of the huts were built. They were constructed on piles, for what reason I do not know. I thought perhaps for fear of snakes—though they could easily have twined themselves up—or on account of inundations; but I learned from Abou that such things were unheard of. At length I formed the theory that the inhabitants were descendants of people who always built their houses in the water, as did the folks in the pile-huts of Lake Constance, and other Swiss and Italian lakes. There are now in South America and many

other parts of the world people who live in lagoons, who build in similar style, and it may be that these Malays are descended from them.

While engaged in examining the appearance of things, I forgot the fact that I was a stranger and a curiosity to the populace. I was aroused to a knowledge of the fact by the tittering of a group of children who had surrounded me, and who, emboldened by my forgetfulness, were about to oblige me with a shower of tiny darts from their toy sumpitans or blowers, which are just like a boy's popgun or pea-shooter. Hearing the sniggering, I turned round, and sent the urchins scampering away as hard as they could, one unlucky fellow falling in his haste. I ran to pick him up, which act was vilely misconstrued, for they all set up a terrible howl, as if I was going to eat their comrade. This mournful cry brought out the mammas in full force; and whilst I was endeavouring to pacify the three-year-old and stop his yells by caressings and strokings, I found myself confronted by a good-looking mamma of about fourteen, yellow as a cowslip, whose eyes blazed fury, and who poured forth a torrent of choice Malay on my head. Placing the child in her arms, I smiled my very sweetest to reassure her; and having examined her young hopeful's condition, and found all his limbs and vital organs perfect, and no blood flowing anywhere, she gave him a heavy spanking, just in the fashion of an English mother; after this she walked off with much dignity, not even vouchsafing a look at me.

I was somewhat disappointed, for I felt hungry, and had intended to ask for something to eat, in the universal language of pantomime. But I was luckier than I deemed after all, for soon a girl about nine, as I should think, though fully matured, and probably the sister of the first, brought me out a cocoa-nut and four plantains, which I received with many thanks. I ate the plantains, and then looked about for some means of opening the nut, but not finding any, I endeavoured to peel off the green rind with my fingers, intending to crack the shell on a stone; but being a young nut full of milk, I could not get the rind off. So I was forced to look around for assistance, and soon found that the family to whom I owed the fruit were vastly diverted at my attempts. The head of the family, whom I recognised as a warrior in one of the proas (and indeed I could not help suspecting that I had cracked at him with the revolver), advanced with a broad smile on his face, and a knife with an immense blade, and with one tremendous slice took off the green top, which had nowhere hardened into a perfect shell, disclosing the inside like a cup filled with water. This I drank with great relish. The Malay spoke something to the girl, who brought another cocoa-nut, but evidently a ripe one, for the rind had split and was peeling off. One or two rapid twirls of the knife cleaned it off completely, and then with a single blow he split it in halves, and gave me one, giving the other to the little boy who had served as my introduction to his family circle. I took it with a profusion of thanks, whose purport he seemed to understand with dignified appreciation. On the bend of his arm there certainly was the scratch of some weapon, and I was more and more convinced that he was a man I had deliberately aimed at, and

been particularly vexed at missing. And as I ate my cocoa-nut I felt secretly rejoiced that he was not going to use his broad knife on my head by way of retaliation.

### SWIMMING.

WE recollect being strongly impressed many years ago with the desirability of having our girls taught to swim as well as their brothers, and of preparing for the whole family suitable and becoming dresses in which to bathe. Paterfamilias, who had taught all his boys to swim and to dive—so that the little ones of six and seven years old were the wonder and admiration of the gazers on the beach—undertook to clothe himself in a suit made of thin scarlet flannel, and to give his daughters the necessary instructions to make them also skilful swimmers.

It was on the quietest and most primitive little sea-beach on the coast of Suffolk that this attempt to achieve a family gathering in the water was first made, and great was the fun and enjoyment of the first two lessons. The pleasant parties had, however, to be stopped, and the girls of the family left by their male relatives to flounder in the water as best they could, for the shopkeeping visitors to the beach from the adjacent town were so shocked at the unwonted sight of this 'un-English' display of the commingling of sexes in the sea, that they became a perfect barrier to the enjoyment. The pleasant amusement had to be abandoned, although the costume worn was decidedly more rigid than is often seen in an ordinary drawing-room, and much more rigid than that adopted at many an English bathing-place. So the attempt was abandoned for the nonce; and the girls of the party waited for their lessons in natation till they visited Dieppe on the French coast during the following summer, where it is not considered objectionable or improper for husbands and wives, fathers, brothers, daughters, and sisters to walk into the sea together and swim away side by side, or for ladies and their friends of either sex to enjoy an aquatic morning chat.

With the increasing sense of necessity for exercise and physical development in women, we gladly hail an improvement in the style and manner of bathing on our coasts. The cumbersome floating dress, which in itself was no protection, has given place to a neat, well-fitting, and decent sort of bloomer costume, which meets all the requirements of a bathing and swimming dress; and the bugbear of our childhood, the dreadful old, weather-beaten, half-salted bathing-women, who used to seize and plunge us in the water, stifling our cries, and almost terrifying us to death by dips—'One, two, and three,' before we could recover breath, has well nigh disappeared. In these enlightened days, it is seen that children will never take to the water or learn to swim if they are frightened into it; for one great secret of the art which we are advocating is confidence—repose—a sense of safety.

It is not possible to teach swimming through the medium of pen and ink; but some hints may be given, which, if put in practice, may supplement more practical lessons in the water. It is a very desirable thing to disarm every child's mind from fear of the water. To realise this fear, we have but to recall the well-remembered horrors of the

opening of the machine door on a vast waste of green water, with not an inch of land visible to our terrified gaze; and the splash of the dreadful gorgon who was to seize and plunge us into this terrible abyss; and to contrast the joy with which the children of the present day trip down to the beach carrying their dainty little dresses—sure that mamma or nurse will see well to their safety while they gambol and play amid the crested waves, and thus learn to have no fear of the mighty deep, which, like many other things in life, is a fearful enemy to those who fear him; but to those who have learned his ways and his humours, and know how to manage him, is a delightful friend and playfellow.

It is a very good plan to learn to swim in any one of the many baths open now in all our large towns, for such as have not learned in childhood. At the Lambeth Baths in London, Miss Beckwith, the daughter of the proprietor, who is a skilful and graceful swimmer, gives lessons to ladies at certain times; and Mr Beckwith himself is an accomplished and able instructor. In the essential part of swimming, that is the art of keeping the head above water, there is really no skill required; confidence in the sustaining power of the water is the only secret; and if the novice will only dare to trust the water, and remember three simple rules, he cannot possibly sink: 1. On entering the water and attempting to swim, keep the hands and feet well below the surface, and immerse the whole body up to the chin. In France the teacher usually stands upon a platform which overhangs the water, and upholds the pupil by means of a rope which is fastened to a belt round the waist. As the rope passes over the end of a slight but tough pole, the teacher looks very much as if he were fishing for sharks with a human live-bait. Any mode of supporting the body will do excepting corks or bladders, which are a delusion and a snare, and raise the body unnaturally and too far out of the water. 2. Hollow the spine, and throw the back of the head on to the shoulders. The reason of this is in order that the solid mass of the brain may be supported by the air-filled lungs, and the eyes and nostrils kept above the surface. The mouth should be firmly closed, and respiration conducted through the nostrils, so that no water can enter. 3. Move the limbs quietly.

A jerky, fussy swimmer is never a good one; and while he continues these habits will never accomplish any long distance or achieve any elegance in swimming. A slow stroke is the very essence of good swimming, and when endurance, not speed, is requisite, is the most valuable. There is nothing like the slow style for learning to swim; you may graft upon it all sorts of natatory accomplishments; but in time of danger the slow stroke is your sheet-anchor. Two novices who are wishing to learn to swim may, with a few practical directions, be very useful to each other. Of course the sea is the easiest medium for a beginner, on account of its being of a more buoyant nature than fresh water; but if you are not by the sea, why, you must go into a shallow river or lake instead. Walk in together until you are breast-deep; then let one spread himself upon the water, whilst his companion supports him with one hand under his chest. Lying on the water in this way he can practise the various movements easily, and when he is tired he can exchange duties with

his companion. It is astonishing how much can be done in a few days, and how soon the learner becomes independent of the supporting hand. As soon as the learner feels confidence, and that he has gained a mastery over the water, his companion should withdraw his hand, until at last its support is not needed. When the pupil can swim twenty yards in shallow water, let him try his mettle in water out of his depth, accompanied, however, by some good swimmer; but beginners should always make a practice of swimming *towards the shore* if possible, so that every stroke may bring them into shallower water as they get tired.

Practice in swimming, as in every other art, is the great thing to insure perfection, for as the swimmer feels his own safety in the water, and the almost impossibility of sinking if left to himself, he indulges in all sorts of gyrations and antics, to vary the monotony of simple progression. There are innumerable ornamental additions capable of being made to ordinary swimming. There is walking or treading the water, leaping like a goat, lying on the surface of the water, spinning round like a top; and a clever performer can turn somersaults in the water, 'carry his leg in one hand,' swim with his legs tied, and achieve numberless other remarkable diversions in the element over which he has attained mastery.

Swimmers should never remain in the water too long. We speak of course of amateurs who wish to enjoy the exercise for its own sake, and not with the object of accomplishing any feat of distance or racing. When such enterprises are undertaken they are as much a matter of preparation and training as any other athletic performance. Of late we have had notable instances of wonderful power of endurance, and that characteristic of the Englishman known as 'pluck,' in the remarkable feat of Captain Webb, who crossed the English Channel from Dover to Calais in a twenty hours' swim, without appliances, without trickery, without assistance, and as he says himself, 'as a British sailor should do.' Captain Webb has been delivering in various towns in England an interesting lecture on his own experiences; and as he is certainly the champion of swimmers, we may with propriety take his opinion as to the material of which good swimmers are chiefly made. The medical man who accompanied Captain Webb when he gave his lecture tells us that perfectly sound health and a temperate life, especially in the use of stimulants, is essential to the accomplishment of anything like a long-sustained effort in the water.

Captain Webb could swim at eight years of age; and he says the younger the pupil, the easier it is to learn to swim. At an early age the limbs are more supple and less stiff and difficult to manage than in later life. Captain Webb's father was in the medical profession; but his son's love for the sea was not thwarted by him, and the boy joined the ship *Conway* off Liverpool in 1857. It would be well indeed if every boy were compelled to learn to swim before he could join any ship, be it in the merchant service or navy; and a good rule for every family and school would be that no boating excursions should be possible for any lad who could not swim. Many sad and terrible accidents might thus be prevented. Captain Webb says that by a good swimmer, such as he would desire to see every English boy, he does not necessarily



mean a fast or brilliant swimmer; life-saving depends on a slow and steady stroke, and it is much more practically useful to be able to swim five or six miles in a suit of clothes, than to be the champion swimmer of five hundred yards in an incredibly short space of time. We would be inclined to think that even the comparatively short distance of a quarter of a mile in one's clothes, is what all ought to endeavour to achieve.

Much that we have already said about the best methods of learning to swim is endorsed by Captain Webb, who tells us that a slow, steady, powerful breast-stroke, known as the 'Eton stroke,' is the style to be encouraged, without hurry, without flurry; the hands being only second in the propelling movement in comparison with the feet, the heels touching each other after every kick, the hands placed flat on the water, the thumbs touching, thrust to the front full length, then slowly brought round square with the shoulders till the elbows touch the sides of the body, when the hands return to their starting-place between the chin and the breast.

Captain Webb's first notoriety was not gained by any planned effort, such as his swim across the Channel, but by a spontaneous act of British pluck, which deserves to be remembered. It was on the 22d April 1873 that he was a sailor on board the Cunard steamer *Russia*, coming from America. A friend of the writer was on board; the vessel was going fourteen and a half knots an hour, the sea was 'houses high,' and the ship was rolling terribly, so that it was impossible to keep one's feet. 'Man overboard!' was the terrible cry that sounded through the wind and the waves. In a moment Webb was overboard, clothes and all, the idea of rescuing the poor fellow being his only thought. There was only his cap to be seen; and as the eyes of the passengers strove to see the man, only a vast waste of water was visible. Perhaps he had been struck by the screw or sucked under the vessel; certainly he was not on the waves, and Webb himself was almost immediately out of sight. His own sensations when he found himself left thus alone in mid Atlantic, he graphically describes. He could not and did not know whether any effort to save him was being made in the vessel he had left, or whether he too had been given up for lost! Home, friends, past events, crowded thickly into his mind; but he did not give up the effort to keep himself afloat, nor did hope desert him, though he felt that the very size and strength of the waves must shortly kill him. At last he sees a little speck on a far-distant wave. Can it be a boat? Yes. But the crew is rowing away from him back to the ship! They do not see him, and have given him up. He manages to shout to them, and they hear him and return. He has been thirty-seven minutes in a sea in which but few men could have survived, and is at last picked up by the boat's crew, without his man, and exhausted.

The excitement on board, it may be imagined, was great; and the ship's passengers made up a purse of a hundred guineas, which they presented to Webb as a testimonial of his gallant conduct. A sum was also collected for the relatives of the poor fellow on whose behalf Webb's brave but unsuccessful plunge was made. The silver medal of the Royal Humane Society was given to Webb; and in addition, he became the first recipient of

their highest honour, the Stanhope gold medal, which was presented to him by the hands of the Duke of Edinburgh on the centenary festival of the Royal Humane Society.

After some unsuccessful attempts, Captain Webb determined to make a resolute effort to swim across the Channel. The only training he had for this bold adventure consisted in taking plenty of good animal food, with a due allowance of fat, and three pints of good sound beer daily. He avoided spirits, tea and coffee, went to bed early at night, and remained in the open air all day.

On Tuesday, August 24, 1875, at one o'clock, Captain Webb left the steps of the Admiralty Pier, Dover, for his remarkable swim across the Channel to Calais harbour. Covering his skin well with porpoise oil, to prevent the excoriating action of the salt water, he started at the rate of twenty strokes a minute. During his whole swim, he took no solid food—ale, beef-tea, and coffee being his only refreshments. He describes the incidents of the way very amusingly. For the first two hours he only met an empty flour-barrel and an old meat-tin, which persistently floated in his wake. Then the ship *Castalia*, homeward-bound—from off which jumped the 'boy Baker,' who swam alongside for company to some distance. A school of porpoises were the next objects in his way; they took but little notice of him, and soon got out of his way, though from the scent of porpoise oil his 'dressing' gave out, they might have taken him for a friend. About half-past three o'clock, when he had been in the water two hours and a half, he had made five miles, and then settled down to a steady stroke of fourteen to a minute, feeling, he says, 'full of pluck.' A big steamer came by. She was a foreigner, and bound for Dunkerque. Foreigners cannot cheer—they shouted as well as they could; but the British seaman missed the ring of the British cheer. At a little past six he was joined by a small boat containing a well-known university oarsman, whose cheery words encouraged the plucky swimmer. Sun set at seven, and he describes the sunset and the soothing ripple of the waters as having the effect of almost sending him to sleep. But he must not relax. Half the task is done, and he is feeling 'right as a trivet.' It gets darker, and the moon has not yet shewn her silvery face over the sea; but the waves sparkle and shine with phosphorescence. Every stroke seems as if it were throwing away countless diamonds. Ah, Captain Webb, had you been a naturalist, you would have understood by this beautiful appearance that you were in the midst of troublesome companions, and need not have been perplexed and almost terrified on feeling a sharp, sudden, stinging pain in your shoulder, which, as you tell us, made you 'turn faint and sick.' The phosphorescence of the sea is produced by countless living or decaying organisms; sometimes by jelly-fishes, some of the large ones of which have the unpleasant property of stinging, and are hence called *sea-nettles*. The smarting and pain caused by one of these disagreeable visitors to our gallant captain, remained for hours, and the red mark on his shoulder lasted for days. The moon rose at ten o'clock, and Webb was the first to welcome her. The tide had turned again; other friends came out to meet him and to welcome him on his way, burning red lights in their boats, and telling him

that he was now but seven miles from the coast of France.

Another hour he laboured on. At two o'clock in the morning the mail-boat passed him from Calais. He saw the light on Cape Grinez, and it encouraged him on. It then became hard work. His face and neck were sore from the exposure, and were incrustated with salt. Day began to break, and he felt as if he must give in; but no; 'Do it or die!' seemed to ring in his ears, and on he went, swimming quicker and shorter. Every wave seemed to grow bigger. His hands were livid, and his legs felt as if they did not belong to him. Nine o'clock! Captain Dane is coming out of the Calais harbour to meet him, and has put his large boat on the weather-side, so that the waves no longer appear so formidable. The boat's crew cheer in true British style, and the heart of the gallant sailor, who has nearly finished his task, is cheered. Three hundred yards more—down goes an oar. No land touched yet. Another spurt. The oar touches the bottom! Well done, Webb! You have achieved a feat as yet unrivalled, and have landed on French soil, after a swim of twenty hours in the sea.

Webb's success induced others to emulate him, but without accomplishing the task. Cavill made the attempt, but had to give up after being in the water a few hours. His health and constitution unfitted him for the effort; and we believe that if such performances must be attempted, only those who are perfectly sure as to the soundness and power of their physique ought to try.

Independently of being able to swim, many lives would be saved if people would only learn to float. Man is the only animal that drowns unnecessarily. He does so because the knowledge he ought to possess does not come to his rescue, as does the instinct of the brute. A dog or a horse, or any other quadruped, when it finds itself out of its depth, swims away with its head above water, and usually gets safe to land. Man not finding himself in his natural position, is filled with terror, stretches his hands out of the water, which helps him to sink, or opens his mouth to scream, which fills his lungs with water instead of air. The result is obvious. If we could only have faith in the natural buoyancy of the body, and when cast unexpectedly upon the water, remain passively upon it, with the mouth tightly closed, many lives might be saved that are now annually lost.

## THE LAIRD'S RELIEF.

IN TWO PARTS.—PART II.

MR ARMSTRONG of Closeburn, banker, proprietor, and magistrate, sat in the study of his residence at Balgoyle in consultation with Robert Wilson, the chief constable, debating matters concerning the good order of the town during the three following days, which were to be devoted to the far-famed Balgoyle races. They naturally expected to have their hands pretty full during this season, and were chiefly anxious as to whether their force might be sufficient to deal with the unusual presence of a noisy crowd in the quiet town.

'By the way,' said the magistrate, having finished his official business, and, as was his wont, treating himself to a little gossip of which Rob Wilson

was a famous retailer, 'the Laird o' Brackenhaugh was in dining with me last night. He removed a quantity of valuable plate from the bank; I hope he will be sure to have it conveyed safely. Anything going on out there—eh, Wilson?'

'Ou ay, sir. There's to be grand doings out-bye. John Scott o' the Abbey Inn has had sic an order as is like to send him wild; and Inglis the flesher has had an extra killin'. And there's been hampers frae Edinbro', and flowers, and I dinna ken a' what—let alone a band o' musicianers. And what's mair, sir,' he added in a whisper, 'they tell me there's been siller to pay for it a'.'

'Hum, ha! Of course, of course.'

'And there's a grand party comed frae the South—a coach-load and twa machines, with Miss Barbara at the head o' 'em'—

At this moment there was a knock at the door, and the servant announced our friend Mr Simpson, who in an excited manner exclaimed: 'I want to see the magistrate.'

'Come, come, sir, state your business calmly, and proceed with caution,' said Mr Armstrong, who didn't like to be flurried. 'Who and what are you?'

'My name's Gabriel Simpson; but what I am at this moment I don't rightly know, your Wuship.'

'Eh, what's this?' said the magistrate sharply, while the constable edged his chair round (he had seated himself to take down Mr Simpson's statement, at a hint from the magistrate), and eyed the new-comer carefully; for Mr Wilson was a very energetic man, and there was scarcely scope for his talents at a place like Balgoyle; and the criminals with whom he usually had to deal were so lamentably stupid that he had come to consider the sifting of evidence a matter for slow minds, and rather devoted himself to the inventive part of his business than the corroborative.

'Well, sir, I mean that last night I was a man in possession; but my sitivation is bust up, and I ain't hanythink, as far as I can see just now. And my business, sir, is *murder*, that's wot it is—wich his name is Wilkie;' and Mr Simpson looked as much as to say: 'Does that wake you up?'

'Murder!' exclaimed the other two.

'Tell your story, sir,' said the magistrate.

'Well, sir, as I was going to tell you, me and my friend Wilkie came down last night, and accordin' to instruction, proceeded to henter upon possession at the 'ouse of M'Leen of Bracken-hog?'

'Brackenhaugh!'

'Yes, sir, Brackenhog. It was Mr Wilkie's intention to have just put me up to a wrinkle or two, this being my first job, and the pore man was going away this morning, if all had gone well with 'im. But little we thought of the dangerous service we was a-goin' on! Little we thought of the desperate willins we was goin' amongst'—

'Come, sir, give us your facts.'

'Well, the facks was as follers. When we got into the 'ouse, we was at first alarmed by the shouting of Mr M'Leen and his friends, who were shootin' of pistols and clashing of swords like anythink.'

Here the magistrate and the constable exchanged glances, and the latter eyed Mr Simpson curiously.

'We was both a bit frightened; but the ladies'—

'What ladies?'

'Missus Janet and Miss Phemie.'

'The housekeeper and one of the lassies, sir,' explained Wilson.

'They was werry kind, specially to Mr Wilkie; and indeed I think the pore man took more than was good for 'im, for he made such a noise that the gents up-stairs must have heard 'im. And through the kindness of the females I was able to get to my room before the murderers came down, and everything was so still afterwards that I thought pore Wilkie had escaped. I thought before I went to sleep that I heard a groan or so, but couldn't be sure. And in the morning, sir, when I woke—O Lor!' and he turned whiter than before, and covered his face with his hands—'there was Wilkie a-hanging to a tree! A corp, your Wuship!'

'A very strange story, eh, Mr Wilson?' And the constable shook his head dubiously, sagely, inventively.

'But wusser than that, your Wuship. I should never have got away safe, but for a villain, a tall red-haired man—'

'That'll be Donald the Hielandman, likely,' interpolated Wilson.

'He mistook me for one of the murderers, I believe, sir, and—and—he talked of hanging as an excellent joke, and invited me to be present when they were a-doin' hup "the other man"—meaning me, your Wuship; and he shuddered at the thought of what he had escaped.

'So then you charge Mr M'Lean with the murder of your friend, eh?'

'Him and his friends. Yes, sir.'

'Did you see Mr M'Lean?'

'No; but I 'eard 'im, sir.'

'Oh! you heard him, did you?—What do you think of all this, Wilson?' said the magistrate, looking suspiciously at Mr Simpson.

'Case for further inquiry, sir. Shouldn't wonder, sir, if it was a plot of some kind—suspicious-looking character, very,' he added in an undertone. 'I'll keep an eye on him.'

After some further conversation, in which Mr Simpson answered sundry questions that were put to him, he was about to retire, when the maid-servant entered with a very red face, and eyes suffused from suppressed laughter.

'Anither mon, sir; and he told me I was to give ye this card;' and turning away her face, she smothered down a laugh with her apron.

Mr Armstrong started on reading the name on the card, and handed it to Wilson, who immediately said: 'I thought so. Owre clever, as usual. Perhaps I'd better go into the parlour, sir, and sit with this gentleman a bit;' and he motioned Mr Simpson to a side-door in a way that savoured rather too much of the 'move-on' formula of a later date, to be quite pleasing to that youth.

No sooner had they retired than the cause of the servant's hilarity became apparent. The door opened, and there entered the subject of the late inquiry, Mr Wilkie; but how different from the spick-and-span Wilkie, the idol of the tea-tables about Nicolson Street and the South Side of Edinburgh! Unshaven, unkempt, travel-stained, he might even still have carried matters off; but how was he to hold up his head in the costume which met the astonished gaze of Mr Armstrong! Full Highland dress made for a man twice his size, kilt wisped round him tight, foldless, dragged; hose, unfilled by the accustomed calf, hanging

flaccid and uneven; a plaid cast round his shoulders as a schoolboy wears a woollen comforter; and a bonnet with an eagle plume and crest stuck jauntily on one side of an uncombed shock of hair that surmounted a face expressing profound humiliation.

'What's the meaning of this foolery, sir? Are you drunk or mad?' said the magistrate angrily.

'I may weel be baith, sir, or it'll no be lang first. I'll no haud my head up again. Sic doin's, sic doin's!'

'How dare you come and play off your fool's jokes upon me in this manner?'

'Jokes! jokes!!' exclaimed the unhappy bailiff.

'Gin yon's a joke, a kirkyard's a place o' revelry and mirth. Look here, sir. I'm a quiet man and an orderly, and I don't mind the time when I couldna tak a freendly glass and keep my wits. But sic a night as last! Maircy on's!' And then Mr Wilkie told the story of his mishaps, which, for the better understanding of the reader, we give apart from his comments and reflections. His recollections of the previous night's occurrences were rather dim, and up to the time of his waking he only remembered that he had fallen under the table in the housekeeper's room at Brackenhau, and had been assisted to his bed by a man and a boy. Overcome by his potations, he had slept till shortly after daybreak, when he was aroused by the sound of knocking at his door. Jumping up, and holding it ajar, he was addressed in tones of frightened entreaty by Phemie to leave the house without delay, as there had been an awful crime committed, and she could not tell but that he might be the next victim. Believing that he had created rather a favourable impression in this quarter, and unmindful of the events of the previous night, he could not suppose that it was other than an interest in his welfare that had actuated the young woman to warn him in this manner; and when, in horrified accents, she had told him how his companion had been foully made away with, he lost no time in preparations for flight.

On looking round the room, however, he found that all his clothes had disappeared, and on mentioning this to Phemie, she seemed more terror-stricken than before, saying that that had been done, she supposed, in order to do away with any possibility of his escape; but he should never say that Phemie didna dae a' in her pooer to save his life; and that she had thereupon flung the articles of clothing in which he now appeared into the room to him, and he had arrayed himself in them as best he could. To make more sure, he had on his way out visited the room in which his friend Simpson had slept the previous night; but it was empty, the furniture and bed in disorder, and blood-stains visible upon the floor and bed-curtains. He would not enter upon the sufferings he had since undergone—how he had lost his way; how he was driven away from farm-houses by dogs; how the driver of the coach had refused to take him, and had merely flicked him on the legs, with the observation: 'Hoot awa', daftie!' how he had been followed by the crowd in Balgyle, and claimed as a cousin by a real idiot—one Daft Willie—who paraded the streets with him arm-in-arm, in spite of all his endeavours to avoid it. All these things, he said, were more than enough to have taken ten years off his life.

Mr Armstrong listened to all he had to say with attention, asked a few questions, and then requested Mr Wilkie to follow him. Going out of the door by which he had entered, the magistrate ushered him into a room looking out into the main street, where Mr Wilkie had the pleasure of seeing a crowd of boys and idlers gathering, in evident anticipation of some fun to be got on his reappearance.

Mr Armstrong returned to his study, and called the constable to him from the next room, and shortly related to him what he had heard.

'Now what do you think of it all, Wilson, eh?'

'Well, sir, my settled conviction is, that it's just a scheme to weaken the constabulary o' the town. He's one of your regular London ones, is that Mr Simpson?'

'Bless my soul! do you think so?'

'Ay, that I do, sir.'

'But they wouldn't have the impudence to put their heads in the lion's mouth in this manner?'

'Ay, sir, the honestest it looks, the deeper I believe the scheme to be—frae a lang experience, sir.'

'But what could their object be?'

'I never fash myself to find an object, sir—at first. It might be anything. There may be accomplices amongst some of the people that will be here at the race-time. It may have to do with the Laird o' Brackenhaugh's plate. It may be a plant to discover our force in the town, and give them a better chance of plunder.'

'Dear me, yes; that's serious.'

'I think, sir, the best plan will be just to keep a watch on them for a day or so at least. It can do no harm, for there is suspicion enough to warrant their detention. We can make inquiries; and at anyrate, as there has clearly been no murder at all, and it's as like as not to be a thievish scheme of some kind, we may net the whole gang possibly. And Mr Wilson's chest expanded and his face lighted up as delicious visions of a *grand coup* and subsequent promotion came before his mind's eye.

'Perhaps so, perhaps so. I think the circumstances justify their arrest. Very suspicious altogether.'

'And I think, sir, it might be best to keep them unacquainted with what we know. There's no telling what other inventions they may have by which we can get a clue.'

'Yes, yes; use your own discretion in that matter, Wilson.'

In an hour from this time, Mr Wilkie and Mr Simpson, despite their entreaties, protestations, and threats of action for false imprisonment, were occupying separate rooms in the lock-up of Balgoolie—in quarters rather superior to those occupied by ordinary malefactors, but still sufficiently guarded by bolts and bars to prevent escape.

For two days and nights they languished in their confinement, each believing in the demise of the other, and vaguely wondering in what way they could be suspected of complicity—which was darkly hinted to them from time to time by Rob Wilson the constable. The expected accomplices not turning up, and satisfactory answers having been received to the inquiries forwarded to headquarters at Edinburgh, they were ultimately released. It was with unfeigned delight that the two men recognised each other in the flesh.

'But what was the body I saw 'anging to the tree?' said Mr Simpson.

'Perhaps this,' said the other sheepishly, as he pointed to a box that had been left for him in the care of the constable, containing his clothes—a great joy to him—stuffed, and with a turnip head, to which a cut cord was attached!

'But how about the blood-stained room?' inquired Mr Wilkie.

'Perhaps this,' said Mr Simpson, pointing to a smaller box received by him, and containing the corpse of a decapitated fowl!

So pleased was Aunt Barbara with her reception at Brackenhaugh—knowing, too, or rather having found out, during her sojourn, that things were not going so smoothly as could be wished, despite the energetic efforts of the housekeeper to throw a cloak over the nakedness of the land—and so pleased was Janet with her stratagem that she took the Laird on one side before his aunt's departure, and urged him 'just to speak up, and tell his dear father's sister his trouble;' which having done, he could not forbear telling her also of his recent deliverance by Janet's means; upon which the old lady requested Janet to give them a circumstantial account of the whole story.

'But,' said Aunt Barbara, as she wiped the tears of laughter from her eyes at the conclusion, and as she handed the housekeeper a ten-pound note to buy a silk gown, 'who were the two fighting callants, Mistress Janet?'

'Jest Donald and Niel the gairdner and the bit laddie, mem; and thank ye.'

#### FIRE-KINGS AND FIRE-EATERS.

WHAT are the hottest things we can swallow without dread disaster to the throat and stomach? Can we handle red-hot solids, and wash our hands in white-hot liquids? Can garments made of woven materials be rendered fire-proof, in a complete or even a partial degree? These are questions worthy of notice; for though it matters little whether or not we attend an exhibition at a place of public amusement, it matters much to know how far and in what way burning may be avoided when fire is raging.

The ancients had more knowledge of this matter than we sometimes give them credit for; and the middle ages in like manner were marked by many incidents illustrating a real or pretended power of bearing intense heat with impunity. Albertus Magnus mentions many feats of exhibitors or trading sorcerers, in which the hands and the interior of the mouth were washed with certain heat-resisting liquids; while in others nothing more was displayed than clever conjuring, men seeming to do what they really did not.

A letter is extant from Sir Henry Wotton to Sir Edmund Bacon, in the time of Charles I., mentioning a Twopenny Exhibition in London, in which 'an Englishman, like some swabber of a ship come from the Indies, who hath learned to eat fire as familiarly as ever I saw any eat cakes, even whole glowing brands, which he will crush with his teeth and then swallow.' Later in the



same century was an exhibitor, one Richardson, who gained much notoriety by this kind of defiance of fire. This appears to be the man mentioned by Madame de Sevigné. He waited upon her from Vitry, and dropped into his mouth melted sealing-wax 'as if it had been so much cold water,' without the slightest semblance of pain; nor did his tongue shew the least sign of burning or injury whatever. The lively letter-writer, while treating the display almost as a miracle, nevertheless asked in a half-bantering tone what would become of the proofs of innocence, so much depended on in former ages, from the ordeal by fire. Richardson probably exhibited his marvels in various parts of Europe; for Evelyn was present at one such display at Lady Sutherland's. After dinner, the fire-king devoured flaming brimstone by way of dessert; chewed and swallowed burning coals; melted a beer-glass and then ate it up, or drank it down; put a live-coal on his tongue, placed an oyster on the coal, blew this strange substitute for a fire-place with bellows, and so continued until the oyster was roasted or scalloped; he melted pitch and wax with sulphur and drank off the mixture in a flaming state; and finally held a thick piece of red-hot iron between his teeth. A learned French publication, the *Journal des Savans*, gave detailed accounts of many of Richardson's marvels; and in the same journal, M. Panthot afterwards explained how they were done, according to revelations made to him by Richardson's servant. The exhibitor rubbed with some chemical substance the hands and other parts of the skin to be exposed to the fire; the powerful liquid hardened the scarf-skin into a kind of leather; and after many repetitions of the experiment, this hardening became permanent. Some blacksmiths, it is known, can handle a piece of iron nearly red-hot, the skin of the hand having become indurated by long practice at the hot trade. In roasting bits of steak and raw oysters on his tongue, Richardson is said to have secretly placed a thin slice of veal between the tongue and the burning coal; and that this and the moisture of the mouth shielded him from injury. As to swallowing such dainties as flaming sulphur and pitch, he was wont to retire immediately from the audience, drink off warm water and oil, and so obtain relief by an emetic.

Early in the last century a fire-eater named Heiterkeit exhibited in London; but all we hear of him is that he had the honour of appearing before three or four members of the royal family. About the middle of the century the great hero in this line was Powell, who was visited and described by Strutt. Although eighty years of age, this man would take burning coals from the fire and eat them; place a bundle of lighted matches in his mouth, and blow out the sulphur-fumes through his nostrils; carry a red-hot heater around the room between his teeth; broil a piece of beef-steak on red-hot charcoal placed on his tongue; and drink with an iron spoon a delectable beverage consisting of blazing hot pitch, wax, brimstone, and lead. There was a little waggery in some of the descriptions of Powell's tendencies: 'His common food is brimstone and fire, which he licks up as eagerly as a hungry peasant would a mess of pottage. He feeds on this extraordinary diet before princes and peers to their infinite satisfaction; and such is his passion for this

terrible element, that if he were to come hungry into your kitchen while a sirloin was roasting, he would eat up the fire and leave the beef.' We may fairly surmise that Powell adopted some such precautionary measures as his predecessor Richardson.

About the same time, the beginning of the reign of George III., several scientific men made some valuable experiments to ascertain what degree of heat the human frame could endure for a short time with impunity—apart from any sophistication or secret preparation. MM. Duhamel and Tissot recorded their observations on a young girl, who entered an oven, and remained there ten minutes at a temperature of 288° F., and on another who braved a heat of 325° F. for five minutes. Dr Solander, first clothed and then unclothed, remained for some minutes in an oven at 210°; Sir Joseph Banks at a little higher temperature; and Dr Blagden at 280°. Eggs were at the same time roasted hard in a few minutes, and a beef-steak baked (for it was really baking) in about half an hour. The experimenters could not touch any of their metal buttons or buckles without burning their fingers. All the temperatures here named, except one, greatly exceed that of boiling water.

Sixty or seventy years ago there was a Signora Girardelli who astonished the sight-seers of London by standing with her naked feet on a plate of red-hot iron; drawing a similar plate over her hair and tongue; washing her hands in boiling oil; putting melted lead into her mouth, and keeping it there till it solidified—or so it seemed to the spectators at anyrate.

A famous man was M. Chabert, the fire-king, fire-eater, and 'poison-swallower,' rather less than half a century ago. By trade a baker at Paris, he gained much notoriety by his fire-resisting qualities. According to the stories told of him, he would rush into a burning house and bring out the inmates. Once, passing a smith's forge, he took out a white-hot piece of iron with his naked hand, placed the end on an anvil, and bade the smith hammer away; the son of Vulcan, too much alarmed, ran away, fearing that a denizen of the nether regions had made his appearance. For a time Chabert was inspector of the royal kitchen at the Tuileries; but he was prone to go into the heated oven and give out the dishes of baked viands with his hands; the king, fearful of sad results from such proclivities, discharged him with a small pension. He went to Vienna, and in the presence of the imperial family, sat in a tar-barrel flaming and smoking, until he was blackened like a negro. Coming to England, he exhibited at White Conduit House, where he entered a huge oven, took in a leg of mutton, shut the door, sang some French songs, and came out with the mutton baked. On other occasions he bore the heat of an oven raised to 500°. Repeatedly he swallowed phosphorus and prussic acid, or *appeared to do so*; but when Mr Wakley, editor of the *Lancet*, proposed to administer the last-named powerful poison as a test, Chabert refused to comply. This and other circumstances led to the failure of the fire-king as a profitable exhibition. There is no doubt that the man possessed exceptional personal peculiarities; but it can as little be doubted that he supplemented these by precautionary measures, such as we have already mentioned.

Scientific and practical men have devoted much attention to the utilising of these peculiarities. Messrs Versmann and Oppenheim have shewn that textile goods for apparel, if impregnated with tungstate of soda, acquire a remarkable and valuable power of resisting flame. The ordinary fireman's smoke-dress will resist much fiery heat, and still more fume and smoke. Dr Tyndall's fireman's respirator is a useful aid in the same direction. Lieutenant Champy has introduced a very ingenious protective dress for French firemen.

The new aspirant for fame as a fire-king, Captain Ahlström, is a Swede, who came to England to display the fire-resisting virtues of a dress devised by M. Östberg of Stockholm. It certainly is about as daring an exhibition as can well be imagined. A wooden structure is built up, supposed to represent the framework of a cottage, which is roofed and filled with combustible and inflammable materials. When this has been kindled into a blaze, Ahlström, clad in his fire-proof dress, enters the burning pile, walks leisurely about, and seems to be as comfortable as if the temperature were only 60° or 70° F.; he brings out red-hot and blazing timbers in his hands, sits down on a half-burnt and still blazing wooden chair, brings out a 'dummy' human being wrapped up in a mantle, chops down burning timbers with a hatchet, and spends something like half an hour in these apparently agreeable pastimes. The fire-dress which enables Ahlström to pass through this ordeal may be said to comprise its own fire-engine within it. Outside his ordinary dress he dons two garments, one covering the head and neck, the other the body and limbs, and meeting at the waist. These garments are double, an inner layer of india-rubber, and an outer of moleskin lined with stout cotton cloth. A casque or helmet of double canvas comes down over the headgear, and joins a breastplate made of similar material. Air circulates between the inner dress and the body, and escapes through holes in the upper part. This air is supplied in a curious way. Ahlström, when fully equipped, has a tail of portentous length, consisting of two concentric pipes—an inner india-rubber tube into which air is fed by bellows or an air-pump, and an outer hose filled with water. There is also a flexible pipe extending from the helmet to a forcing-pump. The whole dress is drenched with water while he exposes himself to the heat; and he has an auxiliary hose with which he can plentifully saturate any objects around him. The water keeps the garments down to a supportable temperature; while a constant supply of fresh air within the dress prevents the wearer from being too much incommoded by the steam generated. Forcing-pumps, or analogous apparatus, both for air and water, appear to be indispensable. The wearer looks through holes in front of the casque, kept cool by water outside and an exit current of air from within. No preparation is applied to the skin; the wearer relies on his garments, the constant pumping in of fresh air, and the constant flooding of his exterior with water. Of course the soundness and good working condition of the tubing, &c. are essential matters; but, these being properly attended to, there seems no reason to doubt that this ingenious invention would be useful for the purpose intended by Östberg and Ahlström—namely, to enable firemen and salvage-men to enter buildings under circum-

stances of flame and intense heat. Practically, however, the dress, &c. would be useless in any emergency where an air-pump and a water-pump were not at hand.

### LOOK TO YOUR MILK.

How to manage the sewage of towns and villages is becoming a matter of serious concern. Rivers are polluted, little innocent rills of water are polluted, water-cisterns are polluted, and what one would never have dreamt of, the milk used at breakfast and tea runs a fair chance of being polluted. On all hands you are beset with poisonous gases, invisible to the eye, and perhaps not perceptible by the nose, but which create typhoid fever and diphtheria to an extent that is becoming in some places alarming. Nature has designed that certain kinds of offensive matter should be as speedily as possible buried in the ground, not only for the sake of putting it out of sight, but in order that the gases created by its fermentation and dissolution may be absorbed and made use of in the vegetable world. Processes of this nature are superseded by what everybody understands by the word sewage: behold the consequences! Men are clever, but they cannot overreach Nature. We are not, however, going into a dissertation on sewage. All we propose to do in the meantime is to ask people to look to their milk; for through that channel, as will be seen by a short statement, there may arise very fatal epidemics.

Such an epidemic broke out during the past year in Eagley, a small village near Bolton, Lancashire, and one which extended into Bolton itself, and embraced no less than two hundred and five cases of sickness from typhoid fever, twenty-two of which cases terminated fatally. The official Report of Mr Power the government inspector into the causes of the outbreak, just issued, shews a combination of circumstances which cannot but be viewed with alarm by all who take an interest in the social condition of the people, but an alarm which, if it leads to action in the right direction, will be of a beneficial character. Mr Power, in his Report, states that the village of Eagley, in which the outbreak of enteric fever commenced, has a population of sixteen hundred and twenty-five persons in three hundred and eighteen dwellings, and shews that the local sanitary arrangements are by no means satisfactory. It has a deficient water-supply; there is no system of sewage existing in the district; and surface-drains carry off all slop and rain water to the nearest water-courses. He then proceeds to deal with the specific epidemic of typhoid and its causes. It appeared that 'of fifty-seven families supplied with milk in Eagley from a particular dairy, no less than fifty-five (96 per cent.) were attacked by fever; while of two hundred and sixty-one other families in the same district, supplied from other sources (or not taking milk), eight (3 per cent.) only were attacked. As regards these eight families attacked by fever though not taking the milk, examination of the circumstances of their attack served but to add additional force to the evidence implicatory of the particular dairy. In

six of the eight, the members attacked had, prior to their illness, partaken at neighbours' houses of the milk in question; in another of the eight, the disease, though called "fever," had not been medically recognised as such, and the origin of the disease, whatever it was, could not be traced; and in the last of the eight exceptional cases, the fever occurred at a later period in April, and was referred by the medical man in attendance to the use for drinking, of water presumably infected by pre-existing cases of fever. "Further, in several instances, persons not residents within the area of the milk-supply were, after partaking exceptionally of this particular milk while visiting friends in Eagley, attacked by fever.

"The evidence connecting the outbreak with the milk-supply is strengthened by the special incidence of fever on habitual drinkers of raw milk. Particulars of the habits as regards milk consumption by individuals were obtainable respecting thirty-five families, comprising one hundred and sixty-one persons. Of these, eighty-three habitually drank milk in a raw state, while seventy-eight took it in tea or coffee, or did not take it at all. Of the former, seventy-nine (95 per cent.), and of the latter, eighteen (23 per cent.) were attacked. As regards the characters of the milk in question, so far as they were of a nature to be recognised by the consumer, it has to be noted that the milk was almost unanimously voted poor, and many persons complained that it had an undue tendency to become sour. Towards the end of January last, it was generally noticed that something was wrong with the milk; it turned sour almost at once, and is described as having been of a peculiar colour, to have tasted unpleasantly, and even to have smelt offensively. In many instances the milk, after standing, left at the bottom of the vessel containing it a sediment variously described as grit, sand, or dirt." This evidence seems conclusive that milk from the dairy in question has in Eagley been concerned in the dissemination of fever; but the operations of this dairy were not confined to the Eagley district. Half of the total milk of the dairy was habitually retailed in Bolton town, two or three miles distant. This fact, shortly after the outbreak of fever at Eagley, became known to Mr Sergeant, Medical Officer of Health for Bolton, who forthwith undertook inquiry respecting the distribution of this milk within his district, and found that wherever in Bolton this milk had been consumed, there also had been fever. 'The localities,' said Mr Sergeant, 'shewed that the disease followed unerringly the track of the milk-supply from the particular farm. Not one household to which the milk was traced was entirely free from disease; the houses, clean or dirty, were attacked indiscriminately.'

As to the causes of the impure milk traced to this particular dairy, Mr Power explains that it was established beyond a doubt, from close examination of the farm itself, that the only water used for dairy purposes was taken from a brook into which organic matter and filth drained, rendering it exceedingly foul. A different class of water was used in other farms in the Eagley district; and though in these cases the water was bad enough, still there was not the specific contamination existing in the water supplied to the farm from which the infected milk emanated. Mr Power concludes his Report thus: 'It hardly appears

needful to insist on the chief lesson taught by the foregoing history. The case is simply one more, and a serious one, added to those cases already on record which point to the urgent necessity for regulation and adequate supervision over the sanitary circumstances of dairy-farms.'

The importance of Mr Power's concluding recommendations cannot be too greatly estimated, or too forcibly pressed not only upon the attention of our local authorities, but upon government itself. We have laws enforcing the inspection of mines and their proper regulation, to insure the safety of the worker; in cotton-mills and iron-foundries, all working machinery is carefully fenced round to avoid accidents; the laws relating to the transit of combustible material by road or sea are strict, and rigidly carried out; the indiscriminate storage of gunpowder, petroleum, and other dangerous substances, is guarded against; and indeed the British subject seems, as it were, to be carefully surrounded by a *cordon* of statutes protective, as far as they go, of both life and limb; yet we cannot but think that all these are comparatively of small moment when, at the same time, death and disease may be dealt out unconsciously at the morning and evening meal from the milk ewer.

#### ON THE TAKING OF FOOD BY AQUATIC ANIMALS.

In the study of animals, it is sometimes the case that, while having our attention occupied with the principal function of a particular organ, we overlook, or consider but lightly some other functions which belong to it as truly, though they may, when recognised, appear subordinate. Thus the gills of fishes are naturally, perhaps only associated in our minds with the process of respiration in these animals. The truth is, however, that they serve other important uses connected with the taking of food (which, it must be remembered, is an essentially different physical process in water from what it is in air); and the study of these, in which we are aided by the recent observations of a German naturalist, M. Jäger, is highly instructive.

When a fish snaps up an object it first opens its mouth and closes its gill flaps; and opens the gills when it closes the mouth. When it wishes to reject a disagreeable morsel, on the other hand, it first, with closed mouth, opens the gill slits, and enlarges the mouth-cavity, then shuts the gill slits and simultaneously opens the mouth. By narrowing the mouth-cavity throughout its length, it now forces out the contents; and in doing so, it is driven a little backwards by the reaction, like a cannon when it is fired.

If we think of it a little more closely, we shall see that, without the gill slits, the fish could not snap up any object, and so could not eat, because the morsel, if it got into the mouth-cavity, would, on closing the mouth, be ejected. The reason is simply this: On opening, the mouth-cavity fills with water after the manner of a pump, and the morsel is taken in through suction of the portion of water in which it floats. It can now be held fast in the mouth only if the water finds a mode of exit so narrow that the morsel cannot escape along with it. For this the mouth slit is nowise fitted, for if it be closed, so that a small morsel cannot escape by it, it affords no easy outflow

for the water. But the want is fully met by its gill apparatus, which presents a double row of long narrow slits, each of which is generally a good deal longer than the mouth slit, so that the water can readily flow away without the morsel being carried off along with it.

But again, if a fish were obliged to eject by its mouth the water it had taken up, it would be driven backwards at each bite, and have to expend force wastefully in recovering its ground by swimming, which would be specially disadvantageous in flowing water. On the contrary, however, as the water flows out backwards through the gill slits, the fish receives each time an impulse which drives it forwards, and the maintenance of its position in rapid water is thus rendered more easy.

From these considerations, it becomes possible to explain a number of the arrangements found in aquatic animals, as compared with those which live in air.

Still regarding the finny tribes, we find remarkably large gill slits in fishes of prey; and any one who has watched a pike or a trout in pursuit of its prey, will have noticed how widely it has stretched its gill slits, so as to let the water flow off as freely as possible on all sides. If this were at any moment to accumulate in the mouth-cavity, the fish's motion would be seriously compromised. It may with certainty be said that all fishes with remarkably wide gill slits hunt their prey in long pursuit. Thus, among our fresh-water predaceous fishes, the pike makes the longest pursuit and has the widest gills. As a contrast we might take the gently feeding and nibbling plant-fishes, such as barbel, carp, &c., which have narrow gill slits.

A similar difference is associated with the streaming of water. As a fish always snaps with its mouth against the current, it receives more water into the mouth the more rapid the current; and therefore river-fishes have in general larger gill slits than fishes which live in still water. Thus too may be explained the remarkable correlation between the width of the mouth slit and that of the gill slits, inasmuch as narrow-mouthed fishes have narrow gill slits, and wide-mouthed fishes wide gill slits. It is clear, then, that the gills in fishes fulfil an important function in the taking of food, just as truly as lips, teeth, tongue, &c. in higher animals. Now it is interesting to inquire how those animals (amphibia, reptiles, and certain birds and mammals) have been provided for that are without gill slits, and yet seize their food under water. A simple arrangement is that in which the mouth-parts for seizing are long and narrow, so that on the one hand the water has free escape to the right and the left, and on the other, very little water is compressed in the act of seizure. This explains the dagger and knife-shaped bills of all swimming and wading birds which prey on fish, as also the extremely narrow, bill-like snout of the dolphin, and the broader indeed, but more deeply slitted snout of the crocodile.

Another substitute for the gill slits is afforded by certain arrangements in the mouth slit, with which either the morsel is seized before the mouth slit is closed for the passage of water, or which permit the separation of small bodies out of the mouth-water. This rôle is played by long teeth, such as those of dolphins, crocodiles; the laminated bills of geese and ducks, &c. and the baleen of whales. In these animals may also be noted

a remarkable deficiency of the lips, so that even when the mouth is shut the teeth so to speak remain visible; and there is no outer mouth-cavity. The lips would here only hinder the escape of the water.

With regard to our gill-less amphibia, it may first be remarked that they seize a great part of their food in the air, or (which comes to the same thing) on the surface of the water. If they be observed feeding under water (which indeed is done almost only by newts) their awkwardness in comparison with fishes is very apparent. They cannot bring the morsel at once into their mouth, even though the mouth slit is comparatively large. It may also be noticed that they prefer large morsels, which are seized by the teeth, while yet the mouth slit is widely opened; whereas the small pieces which a fish swallows with eagerness and ease are either disregarded, or the attempt to snap them up fails, the morsel being carried out again by the returning water; this proves that the eating apparatus of amphibians is better adapted for land than water. This incapability of the newts appears more clearly if one watch the feeding of their larvæ, which are provided with gills. In this stage of its existence the newt seizes its prey with the same rapidity as a fish.

#### THE INVINCIBLE LOVER.

My heart sings like a May-day bird

That wons in leafy groves,  
And lightly doth the burden bear  
Of half a score of loves.

My heart sings like a May-day bird,  
And will not stint its joy  
For all the laughing maids on earth,  
That smile to work annoy.

On Youth, like a triumphant king,  
I gaily still can ride;  
Nor need I part from Nature's charms  
To seek a meaner bride.  
The morning sun, the radiant eve,  
Are dearer far to me  
Than any rosy cheeks, or lips,  
Or bright love-rolling e'e.

Yet not unapt in Love's sweet wiles,  
Nor dames unskilled to sue—  
Nature's my mistress and my queen,  
More gracious and more true.  
On her green hills—a nuptial couch—  
Through dewy evening hours,  
I woo her western winds, and hold  
Soft dalliance with her flowers.

No jealous fears disturb my breast,  
But with a large consent  
Rich favours I receive, and them  
Receiving am content.  
All seasons and all times she owns  
My love with heartfelt tie;  
In her embrace my life I pass,  
In her embrace shall die.

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